HOLD UNTIL RELEASED BY THE
SENATE COMMITTEE ON
HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS

# TESTIMONY OF


FRANK KENDALL

PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE

(ACQUISITION, TECHNOLOGY & LOGISTICS)


BEFORE THE SENATE

SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT,

GOVERNMENT INFORMATION, FEDERAL SERVICES, AND

INTERNATIONAL SECURITY

March 29, 2011


HOLD UNTIL RELEASED BY THE
SENATE COMMITTEE ON
HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS

## Introduction

Senator Carper, Senator Brown, and distinguished members of the sub-committee, thank you for the opportunity to submit this written testimony on the U.S. Department of Defense's (DoD) commitment to combating cost overruns in our major weapon systems.

This is a joint testimony prepared by the Office of the Under Secretary for Acquisition, Technology, and Logistics, OUSD(AT&L), and the Director for Cost Assessment and Program Evaluation, D,CAPE. I am joined today by Dr. Richard Burke of that office. He is the Deputy Director, Cost Assessment for the Department of Defense.

The Office of the Under Secretary for Acquisition, Technology, and Logistics is the principal staff element of the Secretary of Defense for all matters relating to DoD acquisition; research and development; advanced technology; developmental test and evaluation; production; logistics; equipment sustainment; installation management; military construction; procurement; environmental security; and nuclear, chemical, and biological matters.

The Cost Assessment and Program Evaluation office provides independent analytic advice to the Secretary of Defense on all aspects of the Defense program, including alternative weapon systems and force structures, the development and evaluation of defense program alternatives, and the cost-effectiveness of defense systems. The office also conducts independent cost estimates, cost-effectiveness analyses and offers advice in a number of related areas.

The Department is waging a continuous struggle to prevent, reduce and eliminate cost overruns, not just in major programs but throughout the defense enterprise. Next to supporting our forces at war, President Obama's and Secretary Gates' highest priority for the Department's acquisition professionals, is improving the way the Department does business. We are committed to diligently managing taxpayer dollars in everything we do. We have a continuing responsibility to procure all the goods and services needed to sustain and modernize our forces without the luxury of ever-increasing budgets. We are striving to achieve productivity growth instead of cost growth: as the Under Secretary for Acquisition Technology and Logistics, Dr. Carter, has stated we must "Do More Without More."

We are fighting this battle on many fronts. Today I will outline a number of tools and policies DoD is using to manage costs in our programs, to include those associated with recently enacted in legislation, and I will outline our overarching DoD strategy to increase acquisition efficiency and lower costs through a broad range of "Better Buying Power" initiatives begun last fall by Under Secretary Carter. I will emphasize the efforts we are making to control costs and eliminate cost growth in major programs, but I will also touch on efforts we are making to control costs throughout the defense acquisition system.

Firstly, however, I would be negligent in my own duty to control costs if I did not point out to the subcommittee the extremely negative impact on our acquisition costs that the lack of a 2011 Appropriations Bill is having at this very moment. The Continuing Resolution situation is forcing program managers throughout the department, as well as our suppliers in industry, to restructure plans that were designed to efficiently procure the tools our war-fighters need. The

Services are already being negatively impacted. The Navy cannot enter a new contract for the second Virginia-class submarine, as they planned on January 31. This will cause delay and may lead to unnecessary cost increases in one of our largest acquisition programs. Even now, they are struggling to avoid work stoppages. The Air Force has reduced procurement of MQ-9 UAS Reapers by 24. The Army has reduced procurement of the CH-47F helicopter by 4 and reduced the Ground Mobile Radio (GMR) procurement by 100. The GMR reduction is precluding the Early Infantry Brigade Combat Team #2, a deployable unit of about 5,000 soldiers, from being fully outfitted in a time when our forces are engaged in combat. We are being prevented from starting any new military construction, and will have to curtail facility sustainment, repair, and maintenance. Furthermore, since military personnel bills are must pay, Services will likely have to reprogram money from acquisition programs to cover those bills, leading to more cost overruns and schedule delays. Conducting defense acquisition in this manner undercuts much of what I will discuss today, and adds unnecessary costs to everything we do. As Secretary Gates told the Congress recently, this is "the crisis on our doorstep."

The Department has moved aggressively to combat cost overruns in the past two years. I'd like to first discuss some of the actions we are taking as a result of recent legislation and then I'd like to discuss the efficiency and cost control initiatives we introduced in September 2010. I'll conclude with some examples of where we are applying these initiatives today.

IMPLEMENTING LEGISLATIVE POLICY

**Weapon Systems Acquisition Reform Act**

The Weapon Systems Acquisition Reform Act of 2009 (WSARA) amended the Nunn-McCurdy unit cost reporting process, raised the importance of weapon system cost estimation, and mandated proven acquisition strategies, such as the requirement of competitive prototyping prior to Milestone B. WSARA codified many practices and policies the Department had already put in place and added others that should have a beneficial effect over time.

Consistent with the key tenets of WSARA, the Department has strengthened the front end of the acquisition process by establishing requirements that are affordable, achievable with mature technologies, and appropriately balance technical risk between the government and contractor. The Department's objective is to achieve predictable cost, schedule and performance outcomes based on mature, demonstrated technologies that provide our war-fighters with the capabilities they need, while avoiding exquisite solutions we may never be able to afford. Poor planning, as opposed to poor execution, has been the single biggest cause of cost growth in our programs.

We have also established and staffed all of the organizations called for in WSARA, expanding our Developmental Test and Systems Engineering oversight organizations, and creating an office for Performance Assessment and Root Cause Analysis (PARCA). Strengthened Systems Engineering and Developmental Test organizations in OSD are helping us to plan more executable programs and to address sources of cost growth during program execution. PARCA's Performance Assessment office has played a critical role in my reshaping of USD(AT&L)'s on-going execution reviews of its portfolio of major programs. PARCA actively monitors our programs and identifies and selects those that require attention. PARCA has now completed 13

root cause analyses, a mix of Nunn McCurdy related analyses and assessments that have been directed by my office. The data we are obtaining from PARCA's work is helping us to craft better acquisition strategies and to address shortfalls in the Department's and industry's capabilities. The lessons learned from the activities of these three offices are used in several ways: they serve to provide the roadmap for the problems that the programs in question must overcome; they feed back into our processes as a framework for detecting other incipient problems; and they provide the basis for Defense Acquisition University to pass lessons-learned on to future acquisition professionals. I'm happy to report that, while we are still building these capabilities, all three organizations are making excellent progress and doing exactly what the Congress intended.

WSARA has also changed the cost estimation process in DoD. It established the position of Director, CAPE, and increased by fivefold the number of cost estimates required by that office. The CAPE Independent Cost Estimates (ICE) have been given increased importance, and concurrence of the D,CAPE on the reasonableness of cost estimates is now required in many statutory certifications associated with key junctures in the acquisition process. As a general practice the Department is budgeting to the CAPE independent estimate. Unrealistic cost estimates in the planning and budgeting process are a de facto cause of cost overruns. Providing more realistic levels of funding up front allows the Department to avoid the disruptions associated with frequent rebaselining and acquisition plan adjustments, but this alone, however, will not help the Department directly reduce the actual costs of our weapons systems.

The strengthened Nunn McCurdy process in WSARA directs the Department to ask very logical questions about programs that have exceeded original or rebaselined unit cost estimates by large amounts. In the case of unit cost increases beyond certain thresholds, the Nunn McCurdy process provides what is effectively a presumption that the program should be terminated unless the Department makes a number of certifications to the Congress. During the spring of 2010, following our budget submission, the Department declared six Nunn McCurdy critical breaches. After a thorough review, however, the necessary certifications were made to the Congress and each of these programs was continued. Since that time the Department has declared or initiated two additional critical Nunn McCurdy reviews and we expect to declare a third one shortly. An important change the Department has made this past year is to initiate Nunn McCurdy-like reviews as soon as large overruns are predictable, or even probable, rather than waiting until budget deliberations had completed and the cost increase was certain. In some cases we are also conducting these reviews when costs have increased even if the specific Nunn McCurdy thresholds are not expected to be breached. These changes have made Nunn McCurdy type reviews a more proactive tool for controlling cost growth and an important input to the planning and budgeting process as opposed to a reaction to that process. As an aside, however, because of the method used to calculate cost breaches (unit costs regardless of inventory objectives) the process often captures cost growth that is not associated with mistakes in program planning or execution and it can be misleading with regard to the scope of actual cost overruns caused by poor estimating or execution. Nevertheless Nunn McCurdy is a powerful tool for addressing cost overruns, but only after they occur. The Nunn McCurdy process is intended to serve as a strong disincentive to major cost overruns, but because it responds to rather than directly prevents cost overruns, its utility at reducing cost growth is hard to estimate.

## FY 2011 National Defense Authorization Act

The Department is implementing new provisions in the FY11 Authorization Act associated with major acquisition programs. These include an assessment of critical manufacturing knowledge and skills in the acquisition workforce, as well as implementing guidance on the application of Manufacturing Risk and Readiness assessments to our major programs. Consistent with the statute, we are also reviewing our policies and procedures associated with technical data rights. Additionally, we are moving forward with direction in the legislation to move beyond assessment of individual programs, to periodic reviews of organizations within the Department that perform acquisition functions. These more holistic looks at institutions are expected to provide us different perspectives and performance metrics to shape future policy choices, to help us identify best practices and to provide for what will effectively amount to competition among Department organizations to manage more efficiently. We are in the early stages of implementing these changes, but we are confident that they will have a positive effect.

## IMPLEMENTING "BETTER BUYING POWER"

In September 2010 Secretary Gates and Under Secretary Carter announced the Department's initiative to improve efficiency, boost productivity and reduce costs in the defense contracting arena for goods and services, which make up roughly $400 billion out of the $700 billion the Department spends every year. At that time, Under Secretary Carter issued "Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending" to the acquisition workforce. As the Secretary stated then, "Implementing this guidance will enable this department to make programs more affordable without sacrificing important capabilities and prevent us from embarking on programs that have to be cancelled when they prove unaffordable." The guidance contains a number of initiatives to improve the way we contract for goods and services, but it is important to note that this is one step, albeit a very major step, in a continuing effort to reduce the costs of all the products and services the Department buys. Major programs make up 30% of our research and development investments and 50% of our production investments and they only account for a fraction of the Department's services contracting, which exceeds the amount we spend on product development and production. As a result, many of these measures do not apply directly to major programs, but all are designed to reduce the costs and the cost growth incurred by the Department in the goods and services that we receive from our contractors.

"Better Buying Power" provides for five major areas to target affordability and control cost growth as follows:

(1) Target Affordability and Control Cost Growth;
(2) Incentivize Productivity and Innovation in Industry;
(3) Promote Real Competition;
(4) Improve Tradecraft in Services Acquisition; and
(5) Reduce Non-Productive Processes and Bureaucracy.

(1) Target Affordability and Control Cost Growth: Secretary Gates set the expectations very clearly in September by saying "The department is now going to require that program managers

set a new affordability target that cannot subsequently be altered without specific authority from Under Secretary Carter. Managers will ensure that a program's initial design is constrained by its ultimate schedule and cost." Our guidance now mandates specific affordability targets for unit production and sustainment costs as a requirement at all major investment decision points in the acquisition process starting with technology demonstration and preliminary design. In the past we have embarked on far too many unaffordable programs based on unconstrained requirements, spent several billion dollars on development, and even entered low rate production before confronting the fact that the program was unaffordable. A substantial fraction of the Department's research and development resources has been spent on programs that never went to full rate production. The EFV is the most recent example of this. From now on the Department will be forcing the communities that set requirements to confront the fact that the Department's resources are not unlimited. As Secretary Gates has indicated there are many cases where the 80% or the "good enough" solution is the only one we can afford to pursue and that exquisite capabilities are not going to be sought in every product that we buy.

As the Congress expects, the Department will continue to use Independent Cost Estimates based on reasonable extrapolations from historical experience, to support budgeting and programming. While this "Will Cost" analysis is valuable and credible and can reduce overruns relative to budgeted funding, it does not help the program manager drive leanness into the program or provide an incentive to increase productivity and reduce program costs. We can't be satisfied with ever increasing costs for the products we buy based on historical experience; we have to set more aggressive targets if we are to control cost growth. To give program managers and contracting officers a tool to drive productivity improvement into programs through contract negotiations, we now require establishment of a "Should Cost" estimate that will be used as a basis for setting incentives, negotiating prices and evaluating the performance of our own managers. This is a fundamental change in our expectations for our program managers and the acquisition chain of command and workforce. Meanwhile, the Department will continue to set the program budget baseline using an Independent Cost Estimate. As an incentive to improve cost performance management we have committed to the Military Departments and Agencies that any savings will be retained and may be applied within the organization that achieved the savings.

(2) Incentivize Productivity and Innovation in Industry: In general we are moving toward stronger incentives to motivate industry to reduce program costs. The Department needs a healthy industrial base. This means that we expect to have an industrial base that makes reasonable profits, but it also means a lean industrial base that is not bloated by excessive cost structures and one that works constantly to reduce its costs. Achieving this requires that we reward good performance with higher profits and that poor performance result in lower profits. As terms of this equation, contractors should be rewarded for efficient supply chain management, reducing indirect costs and improving productivity. Within development programs we also want to tie profitability more tightly to the Department's overarching fiscal goals; lower production and sustainment costs where the vast majority of our program costs occur.
As part of this effort, we are increasing the use of Fixed-Price Incentive contracts, where it makes sense to do so, such as during the transition to full rate production when requirements are firm, production processes are under control, and bidders can estimate costs with confidence. This contract vehicle caps the government's cost exposure, provides a strong incentive to

industry to control cost and allows the government to share in cost reductions. "Incentive" is important, since it shares the costs of overruns and rewards of under-runs between government and industry, giving both sides of the transaction an incentive for good performance. This type of contracting is not a panacea, however. The government has a range of contract options for good reason and we expect our managers to use the most effective contract type in any given situation. We do think this vehicle could be used more frequently, and in appropriate cases where firm fixed price contracting is not justified it provides strong incentives to control costs.

We believe that small businesses can make a substantial contribution to controlling the Department's costs, not as primes on large programs of course, but particularly as innovative sub-contractors. Small businesses have repeatedly demonstrated their contribution to leading the nation in innovation and driving the economy by their example of hiring over 65 percent of all new jobs and holding more patents than all the nation's universities and large corporations combined. We want our defense industry to leverage that innovation and opportunity into our competitions; Components and prime contractors should understand the small business capabilities within their industry and increase market research and outreach efforts to ensure small businesses are utilized to improve our products and reduce total costs.

(3) Promote Real Competition: Competition is the single most powerful tool available to the Department to drive productivity improvement and to control cost. Competition, in the classical head-to-head sense is not always available, but the Department has not worked hard enough to avail itself of all possible competitive situations and it is not doing everything it can to create a competitive environment within major programs. Under "Better Buying Power," a competition strategy must be presented at each program milestone. We are requiring that program managers have a competition strategy for their program throughout the product lifecycle. Since it is not practical to develop and produce two of everything the Department needs, competitive environments for programs must often be created in other ways. This might take the form of a related program that could serve as partial substitute for the program in question, a plan to re-gain competition in an unproductive sole source situation, breakout of subcontracted work, adapting commercial products through open systems and open architectures, or other strategies.

In recent years, the Department has achieved the highest rates of competition in its history, as measured by competitively awarded contracts. Having said that, the fact is that a significant fraction of those competitive procurements have involved what is termed "ineffective competition," since only one offer to a solicitation was received even when publicized under full and open competition. We are working with our contracting officers to re-examine these situations and request certified cost or pricing data, do the cost and pricing analysis and conduct negotiations when there is only a single offer. Simple steps like providing clearer requirements and slightly more time to prepare proposals has been demonstrated to dramatically reduce the number of single bid responses to competitive solicitations and we are implementing these reforms across the Department.

(4) Improve Tradecraft in Services Acquisition: While not closely associated with major program development or production, contracted services spending now represents more than 50 percent of our total contracted spending. In 2009, the Department spent more than $212 billion in contracted services, using more than 100,000 contract vehicles held by more than 32,000

contractors. This contractor support is critical to the Department, but practices for buying such services are not as mature as those for buying weapons systems. This substantial amount of spend demands a management structure to strategically source these goods and services and we are undertaking a number of actions such as: directing each component to create a senior manager for acquisition of services, standardized requirements, development of "best practices" and performance metrics for the several distinct types of services the Department acquires, encouraging more frequent re-competes, using more fixed price contracts, and increasing the use of lower cost small businesses for services contracts,.

(5) Reduce Non-Productive Processes and Bureaucracy: Unnecessary and low-value added processes and document requirements are a significant drag on acquisition productivity, distracting to the workforces in government and industry alike, and must be aggressively identified and eliminated. We cannot achieve Should Cost goals solely by providing incentives to industry to reduce overhead and increase productivity; the government must also eliminate unnecessary and often counterproductive overhead. We have eliminated unproductive reviews done at the Office of the Secretary of Defense (OSD) level while retaining those necessary to support major investment decisions or to uncover and respond to significant program execution issues. Insight at the AT&L level into program execution performance can generally be achieved through established status reporting mechanisms and informal staff contacts. There is a balance between this appropriate level of oversight and that which is excessive and tends to relieve the chain of command from management responsibility. Paperwork associated with the acquisition process has also become bloated and at the same time often fails, without significant re-work and additional reviews, to provide necessary and important content for decision-making. A team has already been established to review the content of our required documents and recommend ways to streamline them while increasing the substantive and relevant information that we need to support decisions.

We will also reduce non-value-added overhead imposed on industry. Industry has its own internal unproductive processes which add to project costs, but these are in some part a reflection of the requirements which the government imposes. A great number of the inputs we received from industry over the past months were directed at what was viewed as excessive overhead expenses based solely on non value-added mandates and reporting requirements. We are taking this seriously and reviewing options to address costs associated with non-value added reporting.

OTHER INITIATIVES TO CONTROL COST GROWTH

**Strengthening Earned Value Management**

Earned value management is a proven technique for establishing a well founded contract baseline program plan as well as managing and monitoring program execution, particularly in development programs. Effective EVM provides for realistic program planning and provides a valuable tool for pinpointing execution problems as soon as they arise. The Department, with the leadership of PARCA and the Defense Contract Management Agency (DCMA), is working with industry and program teams to re-establish discipline and compliance with standards in this critical area and to increase the use of EVM as a program planning and management tool. Earned Value Management systems are not by themselves a solution to the Department's cost

growth problems, but successful development programs are characterized by a well-structured and run system and personnel with the skill and knowledge to act on the information it provides.

**Improving Contractor Past Performance Assessment Program**

Applying meaningful past performance assessments in source selection can be a strong incentive to industry to improve its cost performance. DoD is working to improve the contractor performance reporting system, the management tool known as the Contractor Performance Assessment Reporting System (CPARS). CPARS can do a much better job of providing assessments of a contractor's effectiveness in forecasting, managing and controlling cost for both Systems and Services contracts. DoD has developed a compliance tracking tool, and has conducted initial past performance evaluations on about 50% of eligible awards. While results are improving, past performance reporting guidance and controls must be further strengthened to provide useful and meaningful information to source selection officials and to provide meaningful incentives to control cost growth

**Improving The Acquisition Workforce**

In addition to reforming our acquisition process, we are also in the process of strengthening the acquisition workforce -- our most important asset for controlling cost growth. For the last year the Department has been working aggressively to find efficiencies and to move resources from non-productive activities to value added efforts that provide products and services needed by our war-fighters. This broad Department wide effort of which "Better Buying Power" is a part has led to reductions in staff in many areas. Secretary Gates has essentially frozen civilian workforce increases, with one exception; the acquisition workforce. The increases provided for by the Defense Acquisition Workforce Development Fund (DAWDF) will continue as planned. These increases are focused on the specific skill sets, such as program management, system engineering, and contracting that are needed to control contractor costs. Numbers alone are not enough, quality also matters, and to that end we are also looking at ways to increase the levels of expertise in our workforce, particularly the expertise needed to deal effectively with our suppliers. We have determined that our acquisition training has been too focused on internal processes and not adequately oriented toward effectively managing our suppliers. We are in the process of correcting this and there will be significant dividends in the future from having a workforce that is better prepared to negotiate a contract, deal with a technology issue, or respond to a purported cost increase.

EXAMPLES OF EFFECTIVE COST CONTROL IN MAJOR PROGRAMS BASED ON "BETTER BUYING POWER" AND OTHER INITIATIVES.

Affordability constraints, in the form of unit production cost requirements, have been applied to both the Army's new Ground Combat Vehicle (GCV) and the Navy's new Ballistic Missile Submarine (SSBNX).

Should Cost and Fixed Price Incentive based contracting were applied to the Joint Strike Fighter Lot IV production contract resulting in a target price well below the Independent Cost Estimate.

Fixed Price Incentive (firm target) contracting was applied to the Air Force's Small Diameter Bomb II program which had substantially reduced program risk through a thorough pre-EMD technology demonstration program.

Competition was used on the Navy's Littoral Combat Ship (LCS) production to save more than $1 billion in the next 5 years alone, with additional savings expected over the life of the program.

**Summary**

The Department fully supports the changes enacted in recent legislation and our current "Better Buying Power" initiatives and other policy initiatives are aligned and consistent with their intent. Defense Acquisition did not get to its present state in a short period, and it will take time to see significant impact and realize the results of the changes we are instituting. Secretary Gates, Under Secretary Carter, and I, as well as our entire acquisition team, are totally committed to reducing both cost growth *and* cost in all the products and services we acquire. We know that this will be a long journey and that it will take tenacity and constancy of purpose to implement the necessary changes, but we also know that if we are not successful then the consequences will be unacceptable to our nation and to the Department.